MGP 462

Dual Window Multi-Graphic Processor

MGP 462D

Dual Window Multi-Graphic Processor with SDI Input

UNIQUE FEATURES

- **SDI input**

COMMON FEATURES

- **Combines video, HDTV, and high resolution RGB input sources into two windows on a single display**
- **Inputs: Four configurable inputs on BNCs for RGBHV up to 1600x1200, component video up to 1080p/60 HDTV, S-video, or composite video; one configurable input on BNCs for component video, S-video, or composite video; one input on a 4-pin mini-DIN and a BNC for S-video or composite video, respectively**
- **Output: Scaled picture-in-picture output on configurable 15-pin HD and BNC connectors as RGBHV, RGBS, RGsB, or component video**
- **RGB and HDTV component video output** — Scaled picture-in-picture video is simultaneously output through configurable BNC and 15-pin HD connectors as RGBHV, RGBS, RGsB, or component video.
- **48 selectable output rates from 640x480 to 1600x1200, including HDTV 1080p/60**
- **Picture-in-picture adjustments for window positioning, sizing, zoom, and priority; background and window border color selection**
- **Graphic Still Store enables use of screen captures or uploaded graphics as background images** — A powerful feature that enables screen captures of the current output, or uploaded BMP bitmap graphics, to be stored in memory. Images stored on the MGP 462 can be downloaded to a PC as BMP files for archiving.
- **Background images can be used to create themed multimedia presentations** — An image stored in the Graphic Still Store memory can be displayed as a background to the two video or graphic windows, creating a themed multimedia presentation. The unit can store up to four full screen high resolution images, offering an easy way to display frequently used images such as a company logo.
- **Window transition effects including dissolves, wipes, and cuts** — Windows can be transitioned into and out of the image using dissolves, wipes, and simple cuts, resulting in smooth, professional presentations.
- **Auto-Image™ setup** — The MGP 462 automatically optimizes the image to the scaled output rate, eliminating complex set-up procedures.
- **Input freeze control** — Any input to a picture-in-picture window can be frozen via the front panel, RS-232 or RS-422 control, or IP Link.
- **Text overlay for window caption labeling** — Each picture-in-picture window can be labeled with a text label of up to 16 characters, generated through RS-232 or RS-422 control or IP Link. Custom options are available for text positioning, text color, character size, translucent or color-selectable background, and text border.
- **Picture controls for each window, including color, tint, brightness, contrast, and detail**
- **25 memory presets for PIP window configurations** — A total of 25 default memory presets are available, each with factory-loaded picture-in-picture window configurations. These configurations can be customized to allow quick saving and recall of size, positioning, and priority for both windows, and can also recall a previously stored background image.
- **3:2 NTSC and 2:2 PAL pulldown detection** — Advanced film mode processing techniques help maximize image detail and sharpness for NTSC or PAL sources that originated from film.
- **Quad standard video decoding** — The MGP 462 uses a digital, four-line adaptive comb filter to decode NTSC 3.58, NTSC 4.43, PAL, and SECAM for integration into systems worldwide.
- **Internal test patterns for calibration and set-up** — The MGP 462 offers 12 test patterns, including a crop pattern, crosshatch, 16 bar grayscale, color bars, alternating pixels, ramp, 4 x 4 crosshatch for use with video walls, three film aspect ratio patterns - 1.78, 1.85, and 2.35, and crop patterns for setting up side-by-side windows. It also features a blue-only mode for proper setup of video color and tint levels.
- **IP Link® Ethernet monitoring and control** — An IP integration technology developed by Extron. IP Link enables the MGP 462 to be controlled and proactively monitored over a LAN, WAN, or the Internet.
- **RS-232 and RS-422 serial control port** — Using serial commands, the MGP 462 can be controlled and configured via the Extron Windows®-based control program, or integrated into third-party control systems. Extron products use the SIS™ - Simple Instruction Set command protocol, a set of basic ASCII code commands that allow for quick and easy programming.
- **Front panel security lockout** — This feature locks out all front panel functions except for input selection; all functions however, are available through RS-232 or RS-422 control.
- **Rack-mountable 1U, full rack width metal enclosure**
- **Internal international power supply** — The 100-240VAC, 50/60 Hz, universal power supply provides worldwide power compatibility.

MODEL	VERSION DESCRIPTION	PART #
MGP 462	Standard Version	60-623-01
MGP 462D	With SDI Input	60-623-02

OPTIONAL ACCESSORIES	MODEL DESCRIPTION	PAGE	PART #
SDI Input Board	SDI Input Board	page 615	70-168-01

Continued →

Europe
+31.33.453.4040 / +800.3987.6673
+31.33.453.4050 FAX

Dubai
+971.4.2991800
+971.4.2991880 FAX

Asia
+65.6383.4400 / +800.7339.8766
+65.6383.4664 FAX

China
+86.21.3760.1568 / +400.883.1568
+86.21.3760.1566 FAX

Japan
+81.3.3511.7655
+81.3.3511.7656 FAX

Extron®

MGP 462 Series

DESCRIPTION

The Extron **MGP 462** and **MGP 462D** Dual Window Multi-Graphic Processors combine picture-in-picture graphics processing and high performance scaling, enabling the simultaneous display of two video or computer-video sources for compatibility with HDTV or high resolution computer-video displays. Both MGP 462 models are ideal for use in videoconferencing, command and control centers, conference rooms, boardrooms, distance learning, and event staging systems.

The MGP 462 accepts various input video formats and resolutions, including composite video, S-video, component video up to 1080p/60 HDTV, and computer-video up to 1600x1200. Four inputs with BNC connectors are fully configurable from composite video to RGBHV. The MGP 462 also includes an input on BNC connectors which accepts component video, S-video, or composite video, as well as an input for S-video or composite video on a 4-pin mini DIN or a BNC connector, respectively. An SDI - Serial Digital Interface input is available on the MGP 462D.

For any two selected video inputs, the MGP 462 creates a variety of customizable picture-in-picture window configurations. Independent controls are available for each window, including size, position, and priority. The MGP 462 includes 25 window memory presets for quick configuration saving and recall. Additional picture controls are provided for each input, including brightness, contrast, color, tint, detail, and zoom. Fine tuning controls on the front panel enable precise window and picture adjustments as necessary for the requirements of the presentation.

The MGP 462 applies scaling to each selected input source, as well as 3:2 and 2:2 pulldown for film-originated NTSC and PAL video. The output resolution is selectable to match the native resolution of any display, including HDTV and computer-video at up to 1600x1200. Output is available through 15-pin HD and BNC connectors as RGBHV, RGBS, RGsB, and component video.

Several customization features are provided for professional-quality presentations. Windows can appear and disappear using selectable effects including dissolves, wipes, and a simple cut. Additionally, the input source for each window can be frozen. With Extron's exclusive Graphic Still Store mode, screen captures of the current output can be stored for use as presentation background images. Alternatively, BMP bitmap graphics can be uploaded from a PC via the IP Link® port, and recalled as a background. Images stored on the MGP 462 can be downloaded to a PC through IP Link for archival use. The MGP 462 also includes custom colors for the picture-in-picture background and window borders, as well as text overlay for window labeling.

The MGP 462 can be remotely controlled and monitored through RS-232 with Extron SIS™ - Simple Instruction Set or IP Link via Ethernet. IP Link is a high performance intelligent network integration solution developed by Extron specifically engineered to meet the needs of professional A/V environments. Ethernet-enabled A/V products, such as the MGP 462, can be managed and supported by a technician or administrator at any time from any computer with a Web browser. Through RS-232 or IP Link, all input settings can be saved into and recalled from up to 128 global memory presets, particularly useful when integrating the MGP 462 with a matrix switcher.

SPECIFICATIONS

VIDEO INPUT

Number / Signal type	4 RGBHV, RGBS, RGsB, RGBcvS, component video, S-video, composite video 1 component video (interlaced), S-video, composite video 1 optional digital component video (SDI, SMPTE 259M-C/ITU R BT.601, 270 Mbps), S-video, composite video
Connectors	4 x 5 female BNC for RGB, component video, S-video, composite video 1 x 3 female BNC for component video, S-video, composite video 1 female BNC for composite video 1 female 4-pin mini DIN for S-video 1 female BNC for optional SDI component video
Nominal level	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB for R-Y and B-Y of component video and 0.3 Vp-p for C of S-video
Minimum / Maximum levels	Analog: 0 V to 2.0 Vp-p with no offset
Impedance	75 ohms
Horizontal frequency	15 kHz to 100 kHz
Vertical frequency	50 Hz to 120 Hz
Resolution range	640 x 480 to 1600 x 1200, 480p, 476p, 720p, 1080i, 1080p
Return loss	<-30 dB @ 5 MHz

VIDEO PROCESSING

Digital sampling	24 bit, 8 bits per color; 140 MHz standard
Colors	16.78 million

VIDEO OUTPUT

Number / Signal type	1 scaled RGBHV, RGBS, RGsB, or HD component (YUV) video
Connectors	1 female 15-pin HD, 5 female BNC
Nominal level	1 Vp-p for Y of component video 0.7 Vp-p for RGB for R-Y and B-Y of component video
Minimum / Maximum levels	0 V to 1.0 Vp-p
Impedance	75 ohms
Vertical frequencies	50 Hz, 60 Hz, 72 Hz, 96 Hz, 100 Hz, 120 Hz
Scaled resolution	640x480[1,2,3,4,5,6], 800x600[1, 2,3,4,5,6], 852x480[1,2,3,4,5], 1024x768[1,2,3,4], 1024x852[1,2,3,4], 1024x1024[1,2,3], 1280x768[2], 1280x1024[1,2], 1360x765[2], 1365x768[2], 1365x1024[2], 1366x768[2], 1400x1050[1,2], 1600x1200[1,2] HDTV: 480p[2], 576p[1], 720p[1,2], 1080p[1,2] [1] = at 50 Hz, [2] = at 60 Hz, [3] = at 72 Hz, [4] = at 96 Hz, [5] = at 100 Hz, [6] = at 120 Hz

SYNC

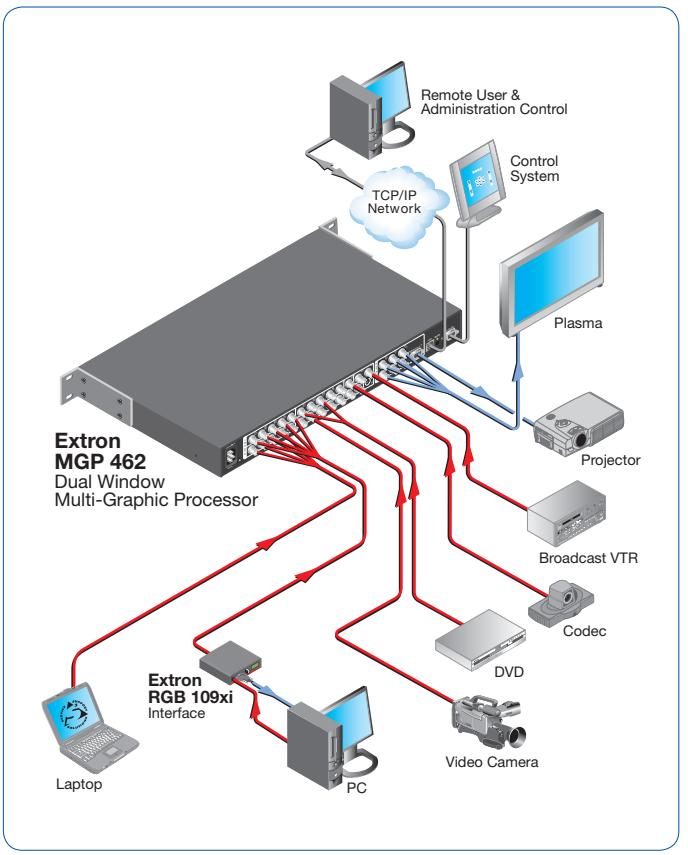
Input type	RGBHV, RGBS, RGsB, RGBcvS
Output type	RGBHV, RGBS, RGsB Tri-level or bi-level on Y channel of component video
Input standards	NTSC 3.58, NTSC 4.43, PAL, SECAM
Input level	0.0 V to 5.0 Vp-p
Output level	TTL: 5.0 Vp-p, bi-level, unterminated for RGBHV, RGBS, RGsB ±2.5 Vp-p for component video (tri-level sync)
Input impedance	510 ohms
Output impedance	75 ohms
Max input voltage	5.0 Vp-p
Polarity	Positive or negative (selectable)

CONTROL / REMOTE – PROCESSOR / DECODER / SCALER

Serial control port	RS-232 or RS-422, 9-pin female D connector
Baud rate and protocol	9600 baud (default), 8 data bits, 1 stop bit, no parity
Serial control pin configurations	2 = TX, 3 = RX, 5 = GND
Ethernet control port	1 RJ-45 female connector
Ethernet data rate	10/100Base-T, half/full duplex with autodetect
Ethernet protocol	ARP, DHCP, ICMP (ping), TCP/IP, Telnet
Program control	Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™) Microsoft® Internet Explorer, Telnet

GENERAL

Power	100 VAC to 240 VAC, 50/60 Hz, 30 watts, internal, universal
Rack mount	Yes, with included brackets
Enclosure type	Metal
Enclosure dimensions	1.7" H x 17.5" W x 12.0" D (1U high, 1 rack wide) 4.3 cm H x 44.5 cm W x 30.5 cm D (Depth excludes connectors and knobs. Width excludes rack ears.)
Product / shipping weight	6.8 lbs (3.1 kg) / 11 lbs (5 kg)



Extron®
USA West
+1.714.491.1500 / +800.633.9876
+1.714.491.1517 FAX
USA East
+1.919.863.1794 / +800.633.9876
+1.919.863.1797 FAX
www.extron.com
© 2008 Extron Electronics. All rights reserved.
Pricing and specifications may change without notice.